

Form PTO-1449  
(REV. 7-92)U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Attorney's Docket Number

Serial No.

**INFORMATION DISCLOSURE STATEMENT**

JIL-9602F

09/904,610

**BY APPLICANT**

(Use several sheets if necessary)



Applicant(s): Jung, et al.

Filing Date: July 12, 2001

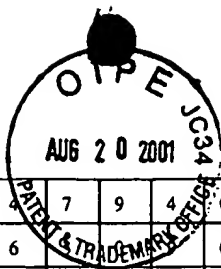
Group Art Unit: 3732

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DL	3	3	2	7	5	8	4	06/67	Kissinger	356	375	
	3	4	3	6	1	5	7	04/69	H. Adler et al.			04/08/66
	3	5	0	7	0	4	2	04/70	N. A. Hana			04/14/69
	3	5	5	5	2	6	2	01/71	Shimada	235	193	05/07/68
	3	7	4	3	4	2	9	07/73	Kawai			05/17/71
	3	7	4	8	7	4	1	07/73	Yerkes, Jr.	32	71	06/08/72
	3	7	7	8	5	4	1	12/73	Bowker			09/03/71
	3	9	4	0	6	0	8	2/1976	Kissinger	250	227	
	3	9	8	6	7	7	7	10/76	Roll			08/22/74
	4	0	5	4	3	8	9	10/77	Owen	356	419	
	4	1	1	5	9	2	2	09/78	Alderman	32	71	09/20/76
	4	1	2	5	3	2	9	11/78	French et al.	356	405	09/07/76
	4	1	8	4	1	7	5	01/80	Mullane, Jr.	356	237	02/09/77
	4	2	0	7	6	7	8	06/80	Jeannette	433	203	09/26/77
	4	2	4	1	7	3	8	12/80	Lübbbers	128	666	04/10/78
	4	2	7	8	3	5	3	07/81	Ostermayer et al.	356	416	04/11/80
	4	2	9	0	4	3	3	09/81	Alfano	128	665	08/20/79
	4	3	2	4	5	4	6	04/82	Heitlinger et al.	433	237	07/14/80
	4	3	8	2	7	8	4	05/83	Freller	433	237	07/02/80
	4	4	1	1	6	2	6	10/83	Becker et al.	433	237	01/09/81
	4	4	3	4	6	5	4	03/84	Hulsing II, et al.			
	4	4	6	4	3	5	4	08/84	Karras, et al.	356	406	05/27/82
	4	4	8	7	2	0	6	12/84	Aagard	128	666	
	4	5	0	5	5	8	9	03/85	Ott et al.	356	406	03/30/82
	4	5	6	0	2	7	5	12/85	Goetz			
	4	5	6	8	1	9	1	02/86	Barry	356	446	07/01/83
	4	5	7	5	8	0	5	3/86	Moermann et al.			
DL	4	6	1	6	9	3	3	10/86	Leveque, et al	356	416	-

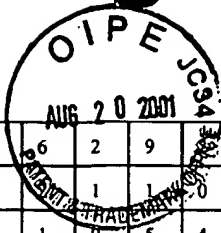
AUG 23 2001

RECEIVED



RL	4	6	5	7	9	4	03/87	O'Brien	364	413	02/18/84	
	4	6	6	6			05/87	Barry et al.	356	446	07/01/83	
	4	6	8	7	3	2	9	8/87	Schultz	356	328	
	4	7	0	7	1	3	8	11/87	Coatney	356	402	
	4	7	2	8	2	9	0	3/88	Eisner et al.	433	116	
	4	7	3	0	9	2	2	3/88	Bach et al.	356	328	
	4	7	7	3	0	6	3	09/88	Hunsperger et al.	370	3	11/13/84
	4	7	9	8	9	5	1	1/89	Walker	250	227	
	4	8	2	3	1	6	9	04/89	Ogura	356	446	02/26/87
	4	8	3	6	6	7	4	06/89	Lequime et al.	356	319	12/13/85
	4	8	4	4	6	1	7	7/89	Kelderman et al.	356	328	
	4	8	7	8	4	8	5	11/89	Adair	600	125	
	4	8	8	1	8	1	1	11/89	O'Brien	356	73	
	4	9	1	4	5	1	2	4/90	Sekiguchi	358	98	
	4	9	1	7	5	0	0	04/90	Lugos	356	406	11/30/88
	4	9	5	7	3	7	1	9/90	Pellicori et al.	356	419	12/11/87
	4	9	6	6	4	5	8	10/90	Burns et al.	356	328	
	4	9	8	6	6	7	1	1/91	Sun et al.	374	131	
	4	9	8	8	2	0	6	01/91	Melleney et al.	356	446	04/26/86
	5	0	1	7	7	7	2	05/91	Hafle			
	5	0	2	8	1	3	9	7/91	Kramer et al.			
	5	0	4	0	9	4	0	08/91	Kolodziej et al.	414	764	11/01/89
	5	0	9	5	2	1	0	3/92	Wheatley et al.	356	71	
	5	1	3	9	3	3	5	8/92	Lundeen et al.	356	328	
	5	1	4	2	3	8	3	8/92	Mallik	356	71	
	5	1	5	9	1	9	9	10/92	LaBaw	356	328	
	5	1	6	4	5	9	7	11/92	Lodder	356	338	
	5	1	6	6	7	5	5	11/92	Gat	356	419	
	5	1	9	3	5	2	5	3/93	Silverstein	128		
	5	2	2	9	8	4	1	7/93	Taranowski et al.	356		
	5	2	4	5	4	0	4	9/93	Jannson et al.	356		
	5	3	0	6	1	4	4	4/94	Hibst et al.	433		
	5	3	0	8	7	7	1	5/94	Zhou et al.	436		
	5	3	0	9	2	5	6	5/94	Takada et al.	358		
	5	3	2	9	9	3	5	7/94	Takahashi			
	5	3	6	9	4	8	1	11/94	Berg et al.	356	319	
V	5	3	7	1	5	8	6	12/94	Chau	356	328	
RL	5	3	7	7	6	6	9	1/95	Schultz			
	5	3	8	3	0	2	0	01/95	Viellefosse	356	326	12/15/92

RECEIVED  
AUG 23 2001  
408 10/11/91  
341-1008  
504



PL	5	3	8	6	2	9	01/95	Massen et al.	356	376	04/27/93
	5	3	9	1	1	0	02/95	Yojima et al.	356	376	04/16/93
	5	4	0	1	9	5	3/95	Richert	250	226	2/15/94
	5	4	0	1	9	6	3/95	Stedman et al.	250	338.5	06/03/94
	5	4	0	4	2	1	04/95	Nave et al.	356	301	11/18/93
	5	4	1	0	4	1	04/95	Yamazaki et al.	356	376	
	5	4	1	0	4	1	04/95	Sela	356	446	
	5	4	2	8	4	5	06/95	Vicillefosse et al.	356	405	12/20/93
	5	4	5	0	1	9	09/95	Carlsen et al.	356	301	04/11/94
	5	4	5	0	2	0	09/95	Penkethman	356	373	
	5	4	5	0	5	1	09/95	Dragone	385	37	07/25/94
	5	4	5	3	8	3	09/95	Danielian et al.	356	371	06/17/94
	5	4	5	7	5	2	10/95	Ohtsuka et al.	356	3.06	07/19/94
	5	4	6	1	4	7	10/95	Fournier	356	343	12/05/94
	5	4	6	7	2	8	11/95	Abe et al.	364	560	10/12/93
	5	4	6	9	2	4	11/95	Magyar, Jr. et al.	356	407	05/17/94
	5	4	7	4	4	4	12/95	Loge et al.	433	22.5	
	5	4	7	7	3	3	12/95	Stone et al.	356	340	04/03/95
	5	4	8	3	3	3	01/96	Tobias	356	310	04/05/94
	5	4	8	7	6	6	1/96	Peithman	433	11	
	5	4	9	7	2	2	3/96	Takeuchi et al.	356	71	
	5	4	9	8	1	5	03/96	Hall	433	26	09/93
	5	5	3	3	6	2	7/1996	Tao	209	580	
	5	5	6	0	3	5	10/96	Merchant et al.	356	41	12/17/93
	5	5	6	5	9	7	10/96	Fleggen et al.	250	227.16	01/18/95
	5	5	7	5	2	8	11/96	Athan et al.	356	41	4/1/94
	5	5	8	3	6	3	12/96	Lazzerini	356	71	
	5	5	9	0	2	5	12/96	Takagi	395	131	08/05/94
	5	5	9	2	2	9	1/97	Ota et al.	356	402	
	5	6	0	4	5	9	2/97	Juffinger	356	405	5/18/95
	5	6	0	9	9	7	3/97	Giorgianni et al.	430	30	
	5	6	2	5	4	5	04/97	Driver	356	446	03/03/95
	5	6	6	8	6	3	09/97	Cheetam, et al.	356	402	10/03/95
	5	6	7	1	7	3	09/97	MacFarlane, et al.	128	633	05/09/94
	5	6	8	3	2	4	11/97	Andreiko et al.	433	24	
	5	6	9	0	4	8	11/97	Zigelbaum	433	29	
	5	6	9	5	9	4	12/97	Galen et al.	435	14	4/7/95
	5	6	9	6	7	5	12/97	Juffinger	369	119	5/5/95
PL	5	7	4	2	0	6	3/98	Ashburn	250	370.09	

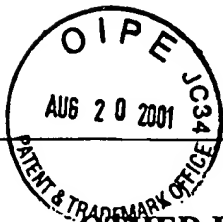


PL	5	7	4	5	2	2	4/98	Jung et al.	356	73	1/2/96	
	5	7	5	4	2	8	5/98	Keane et al.	356	73		
	5	7	5	7	4	9	6	05/98	Yamazaki	356	373	
	5	7	5	9	0	3	0	6/98	Jung et al.	433	29	
	5	7	6	6	0	0	6	6/98	Murljacic	433	26	06/26/95
	5	7	7	4	6	1	0	06/98	O'Rourke et al.	385	52	07/08/96
	5	7	8	4	5	0	7	07/98	Holm-Kennedy et al.	385	31	04/26/94
	5	7	9	8	8	3	9	8/98	Berner et al.	356	402	12/02/96
	5	8	2	2	4	7	4	10/98	Hara	385	24	08/07/96
	5	8	5	0	1	9	5	12/98	Berlien, Jr. et al.	341	137	
	5	8	5	0	3	0	1	12/98	Mizuochi et al.	359	124	04/30/98
	5	8	8	0	8	2	6	3/99	Jung et al.	433	29	
	5	8	8	3	7	0	8	3/99	Jung et al.	356	371	
	5	9	2	4	9	8	1	7/99	Rothfritz et al.	600	306	04/03/98
	5	9	6	1	3	2	4	10/99	Lehmann	433	26	5/20/98
	5	9	6	1	3	2	7	10/99	Lohn	433	80	
	5	9	8	9	0	2	2	11/99	Yamamoto et al.	433	26	
	5	9	9	5	2	3	5	11/99	Sui et al.	356	419	
	6	0	0	2	4	8	8	12/99	Berg et al.	356	418	
	6	0	0	7	3	3	2	12/99	O'Brien	433	26	
	6	0	0	8	9	0	5	12/99	Breton et al.	356	402	
	6	0	3	0	2	0	9	2/2000	Panzera et al.	433	26	
	6	0	3	1	9	2	8	2/2000	Scott	382	108	
	6	0	3	8	0	2	4	3/2000	Berner	356	326	
V	6	0	4	0	9	0	2	3/2000	Jung et al.	356	73	8/12/97
	6	0	5	2	1	9	5	4/2000	Mestha et al.	356	425	
	6	0	5	7	9	2	5	5/2000	Anthon	356	419	
PL	6	0	8	6	2	7	4	7/2000	Krzyninski	400	403	

### FOREIGN PATENT DOCUMENTS

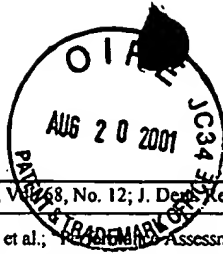
	DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
PL	0	1	6	7	7	5	0	1/86	Lingenfelter (EPO)	356	328		
	0	6	8	1	2	5	6	11/95	Juffinger (EPO)	—	—		
	2	6	6	9	5	2	6	05/92	Tretout (France)	433	203.1		X
	2	2	5	6	3	5	5	12/73	Swinson, Jr. (Germany)	356	402		X
	8	6	0	3	2	9	2	6/86	Di Matta (PCT)	433	203.1		
PL	54	1	0	3	0	5	5	8/79	Nosu (Japan)	356	416		

RECEIVED  
AUG 23 2001  
MAIL ROOM



# OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

DL	Aswell, Cecil J. et al., "A Monolithic Light-to-Frequency Converter with a Scalable Sensor Array", IEEE, 1994, pp. 122-123 and 158-159.
	Bangston et al.; "The conversion of Chromascan designations to CIE tristimulus values"; Nov. 1982; pp 610-617 Vol. 48 No. 5, Journal of Prosthetic Dentistry
	Barghi et al.; "Effects of batch variation on shade of dental porcelain"; Nov. 1985; pp 625-627, Vol. 54 No. 5, Journal of Prosthetic Dentistry
	Council on Dental Materials, Instruments, and Equipment; "How to improve shade matching in the dental operator"; Feb. 1981; pp 209-210, Vol. 102; JADA
	Davison et al.; "Shade selection by color vision-defective dental personnel"; Jan. 1990; pp 97-101 Vol. 63 No. 1, Journal of Prosthetic Dentistry
	Demro, James C., R. Hartshome, P.A. Levine, L.M. Woody, "Design of Multispectral, Wedge Filter, Remote-Sensing Instrument incorporating a multi-port, thinned, CCD area array" SPIE Vol. 2480 p. 280.
	Dickerson; "Trilogy of Creating an Esthetic Smile"; Jul. 1996; pp 1-7, Vol. 1, Issue 3; Technical Update-A Publication of Micro Dental Laboratories
	Elerding, George T. John G. Thunen, Loren M. Woody "Wedge Imaging Spectrometer: Application to drug and pollution law enforcement" SPIE Vol. 1479 <i>Surveillance Technologies</i> , p. 380 (1991).
	Goldstein et al.; "Repeatability of a specially designed intraoral colorimeter"; Jun. 1993; pp 616-619, Vol. 69 No. 6, Journal of Prosthetic Dentistry
	Goodkind et al.; "A comparison of Chromascan and spectrophotometric color measurement of 100 natural teeth"; Jan. 1985; pp 105-109, Vol. 53 No. 1, Journal of Prosthetic Dentistry
	Ishikawa et al.; "Trial Manufacture of Photoelectric Colorimeter Using Optical Fibers"; Nov. 1969; pp 191-197, Vol. 10, No. 4, Bull. Tokyo dent. Coll.
	Johnston et al.; "The Color Accuracy of the Kubelka-Munk Theory for Various Colorants in Maxillofacial Prosthetic Material"; Sep. 1987; pp 1438-1444, Vol. 66, No. 9; J. Dent. Res.
	Johnston et al.; "Assessment of Appearance Match by Visual Observation and Clinical Colorimetry"; May 1989; pp 819-822, Vol. 68, No. 5; J. Dent. Res.
	Kato et al; "The Current State of Porcelain Shades: A Discussion"; Oct. 1984; pp 559-571, Vol. 8, No. 9; Quintessence of Dental Technology
	Mika, Aram M., "Linear-Wedge Spectrometer" SPIE Vol. 1298 <i>Imaging Spectroscopy of the Terrestrial Environment</i> , pp 127 (1990).
	Miller; "Organizing color in dentistry"; Dec. 1987; pp 26E-40E, Special Issue; JADA
	Miller et al; "Shade selection and laboratory communication"; May 1993; pp 305-309, Vol. 24, No. 5; Quintessence International
	O'Brien et al.; "Coverage Errors of Two Shade Guides"; Jan/Feb. 1991; pp 45-50, Vol. 4, No. 1; The International Journal of Prosthodontics
	O'Brien et al.; "A New, Small-color-difference Equation for Dental Shades"; Nov. 1990; pp 1762-1764, Vol. 69, No. 11; J. Dent. Res.
	O'Keefe et al.; "Color Shade and Matching: The Weak Link in Esthetic Dentistry"; Feb. 1990; pp 116-120, Vol. XI, No. 2, Compend Contin Educ Dent
	Pensler; "A New Approach to Shade Selection"; Sep. 1991; pp 668-675, Vol. XII, No. 9, Compend Contin Educ Dent
	Preston et al.; "Light and Lighting in the Dental Office"; Jul. 1978; pp 431-451, Vol. 22, No. 3; Dental Clinics of North America
	Preston; "Current status of shade selection and color matching"; Jan. 1985; pp 47-58, Vol. 16, No. 1; Quintessence International
	Rosenstiel et al.; "The effects of manipulative variables on the color of ceramic metal restorations"; Sep. 1987; pp 297-303, Vol. 60 No. 3, Journal of Prosthetic Dentistry
	Rugh et al.; "The Relationship Between Elastomer Opacity, Colorimeter Beam Size, and Measured Colorimetric Response"; Nov/Dec 1991; pp 569-576, Vol. 4, No. 6; The International Journal of Prosthodontics
	Ryther et al.; "Colorimetric Evaluation of Shade Guide Variability"; 1993; pg. 215; J. Dent. Res. 72 (IADR Abstracts) Special Issue
U	Schwabacher et al.; "Three-dimensional color coordinates of natural teeth compared with three shade guides"; Oct. 1990; pp 425-431, Vol. 64 No. 4, Journal of Prosthetic Dentistry
RL	Seghi et al.; "Spectrophotometric analysis of color differences between porcelain systems"; Jul. 1986; pp 35-40, Vol. 56 No. 1, Journal of Prosthetic Dentistry
	Seghi et al.; "Visual and Instrumental Colorimetric Assessments of Small Color Differences on Translucent Dental Porcelain"; Dec. 1989; pp 1760-



RL	1764, Vol. 68, No. 12; J. Dent. Res.
	Seghi et al.; "Assessment of Colorimetric Devices on Dental Porcelains"; Dec. 1989; pp 1755-1759, Vol. 69, No. 11; J. Dent. Res.
	Seghi; "Effects of Instrument-measuring Geometry on Colorimetric Assessments of Dental Porcelains"; May. 1990; pp 1180-1183, Vol. 69, No. 5; J. Dent. Res.
	Sorensen et al.; "Improved color matching of metal-ceramic restorations. Part I: A systematic method for shade determination"; Aug. 1987; pp 133-139, Vol. 58, No. 2, Journal of Prosthetic Dentistry
	Sorensen et al.; "Improved color matching of metal-ceramic restorations. Part II: Procedures for visual communication"; Dec. 1987; pp 669-677, Vol. 58, No. 6, Journal of Prosthetic Dentistry
	Sproul; "Color matching in dentistry. Part 1. The three-dimensional nature of color"; Apr. 1973; pp 416-424, Vol. 29, No. 4; J. Prosthet. Dent.
	Sproul; "Color matching in dentistry. Part 1. Color control"; Feb. 1974; pp 146-154, Vol. 31, No. 2; J. Prosthet. Dent.
	Sproul; "Color matching in dentistry. Part 2. Practical applications of the organization of color"; May 1973; pp 556-566, Vol. 29, No. 5; J. Prosthet. Dent.
	Swift et al.; "Colormetric Evaluation of Vita Shade Resin Composites"; 1994; pp 356-361, Vol. 7, No. 4; The International Journal of Prosthodontics
RL	van der Burgt et al.; "A comparison of new and conventional methods for quantification of tooth color"; Feb. 1990; pp 155-162, Vol. 63 No. 2, Journal of Prosthetic Dentistry
EXAMINER	DATE CONSIDERED
RL	8/19/2006
* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

RECEIVED  
AUG 23 2001  
TC 3700 MAIL ROOM